

ORA WILLIS KNIGHT.

THE death is announced, in his fortieth year, of Dr. Ora Willis Knight, well known as an authority on the birds of Maine, on which he published the standard book ('The Birds of Maine,' Bangor, Me., 1908), besides contributing many notes on the same subject to the 'Auk.' Dr. Knight was a chemist by profession, and had been consulting chemist and assayer to the State of Maine since 1903.

ANTON FRITSCH.

FROM 'Nature' we learn of the death of Dr. Anton Fritsch of Prague, on November 15, aged eighty-one. He was director of the natural history departments of the Royal Bohemian University and for many years professor of zoology in the same institution. Dr. Fritsch's first published work (1851) was a list of the Bohemian, German, and Latin names of the birds found in Bohemia; and throughout his life he took the deepest interest in the local fauna of his native country. He will perhaps be best remembered for his numerous researches in palæontology, especially in the Permian Amphibia of the "Gaskohle" formation.

*VI. Notices of recent Ornithological Publications.**Bangs on some Siberian Birds.*

[Some Birds from the Highlands of Siberia. By Outram Bangs. Bull. Mus. Comp. Zool. Harvard Coll. liv. 1913, pp. 463-474.]

The expedition during which the collection here described was obtained, took place under the leadership of Dr. Theodore Lyman, of Harvard. He was accompanied by Mr. Hollister and Mr. Klein, the latter a hunter and trapper of great experience, and considering that only five weeks were spent on the collecting-grounds, the results—287 birdskins and almost the same number of mammals—were astonishing.

The localities visited were the Tchegan-Burgazi Pass,

the Chiusaya Steppe, and Topucha, all localities near the Russo-Mongolian border east of Lake Balkash in the Altai mountains.

Some 52 forms are enumerated, and among them are discriminated new subspecies of Merlin (*Falco aesalon lymani*), of Pine Grosbeak (*Pinicola enucleator pacata*), and of Siberian Jay (*Perisoreus infaustus opicus*). The Pine Grosbeak is founded on a single specimen and is distinguished by its bill-characters from the typical race, an unsafe character on which to base a new subspecies, especially where only one example was obtained.

Dabbene and Lillo on two new Argentine Birds.

[Description de deux nouvelles espèces d'oiseaux de la République Argentine, par Roberto Dabbene et Miguel Lillo. *Anales Mus. Nac. Hist. Nat. Buenos Ayres*, xxiv. 1913, pp. 187-194, Lám. x., xi.]

From the dry and desert-like valleys between the Andes and the Sierra de Aconquija, in the north-west corner of the Argentine, these two authors describe and figure a new Parrot, *Cyanolyseus andinus*, which nests in holes in inaccessible cliffs in those regions.

They also describe and figure a new Tinamou, *Calopezus intermedius*, from the province of Tucuman in the same part of the Argentine. It lives in small flocks of eight to ten individuals, obtaining scanty nourishment among the few bushes that grow in those desolate regions at an altitude of 7000-8000 feet.

Gifford on the Birds of the Galapagos.

[Expedition of the California Academy of Sciences to the Galapagos Islands, 1905-1906.—VIII. The Birds of the Galapagos Islands, with Observations on the Birds of Cocos and Clipperton Islands (Columbiformes to Pelecaniformes), by Edward Winslow Gifford. *Proc. California Acad. Sci.* (4) ii. 1913, pp. 1-132, pls. 1-7.]

This expedition was planned in 1905 by Mr. L. M. Loomis, the Director of the Museum of the Academy at San Francisco. Luckily a return was not made till after

the earthquake and fire in April 1906, which destroyed all the collections of the Academy and the material gathered by this expedition forms the nucleus of the new collections acquired since the catastrophe.

The primary object of the expedition was the collection and study of the reptilian fauna, but the birdskins brought back numbered no fewer than 8,691: it is obvious that a good deal of attention must have been paid to ornithology.

The schooner of 87 tons, in which the party sailed, was apparently navigated entirely by the scientific staff, and was absent from San Francisco from June 1905 to November 1906, and most of the time was spent among the numerous islands which form the Galapagos group.

In the present contribution only a small portion of the collection is dealt with, and under each species is given a good series of field-notes and detailed observations on the moult and nesting-habits. All the birds recorded seem to have been met with by previous expeditions, nor are there any new species or subspecies described.

Grinnell on new races of North-American Birds.

[*Leucosticte tephrocotis dawsoni*, a new race of Rosy Finch from the Sierra Nevada. By Joseph Grinnell. Condor, xv. 1913, pp. 76-79.

Two new races of the Pigmy Owl from the Pacific Coast. By J. Grinnell. Auk, xxx. 1913, pp. 222-224.]

Mr. Grinnell believes that the Rosy Finch found breeding at 9800 ft. in the Sierra Nevada on the borders of the States of California and Nevada, can be distinguished from that breeding in the northern Rocky Mountains of British Columbia and Alberta by its more greyish tone of plumage and by its rather more rounded wing. This race apparently only migrates to somewhat lower-lying grounds to the eastwards of the breeding-ground, while the typical race is found in winter in Oregon and Colorado.

In the second paper Mr. Grinnell distinguishes two new races of Pigmy Owl—*Glaucidium gnoma vigilante* from the mountain-ranges of southern California, and *G. g. swarthi*

from Vancouver Island ; while between the two, in the humid coast-regions of central California, occurs the already described *G. g. californicum*, and in the Rocky Mountain region of Colorado and New Mexico *G. g. pinicola*. The alternation of dry and desert tracts with those of intense humidity on the Pacific coast doubtless accounts for the great variation of many of the resident species.

Gurney on the Gannet.

[The Gannet. A Bird with a History. By J. H. Gurney, F.Z.S., M.B.O.U. Pp. lii+567 ; 25 pls., 1 map. London (Witherby), 1913. 8vo. Price 27s. 6d.]

In the pages of this delightful volume Mr. Gurney has accomplished a most difficult task with signal success. He set out to make himself the historian of the Gannet, and little that is worth recording seems to have escaped him.

In successive chapters he discusses the name of the Gannet, the several islands which it now inhabits, or has inhabited, its domestic economy, plumage, and anatomy. Flight, mortality, and modes of feeding afford material for other chapters crowded with interesting facts gleaned by laborious research and personal observation. It may be said of this book, indeed, that it furnishes the most exhaustive account of the Gannet which has yet appeared. Only in one particular can it be improved upon, and this concerns the history of the "courtship" period, of which practically nothing is said.

We should be glad to see Mr. Gurney's book circulated among the members of fishery boards, and especially those who imagine they are rendering a service to the community in advocating the slaughter of the Gannet and Cormorant on account of the toll of fish that they take. Their mistaken efforts are begotten of ignorance. Incredible as is the amount of fish eaten by these, and other piscivorous species, their depredations must be regarded as a negligible quantity. Having regard to the prodigious prolificness which fishes display, the process of thinning out, which

these birds perform, should be regarded as beneficent, and not otherwise. Further, it is to be remembered that these birds feed largely on species which are themselves piscivorous. But more than all, it must not be forgotten that man himself wastes more than he eats. Every year thousands of tons of fish are condemned as unfit for human food in Billingsgate and other large markets. And it is no uncommon thing for a whole cargo to be jettisoned because it will not pay to land the catch. But our wastefulness does not end here; the system of trawling now in vogue entails the destruction of incalculable quantities of spawn and young fish, to say nothing of the ruin wrought on the breeding-grounds by the destruction of other forms of life on which fishes feed. One of the fishery boards in the south of England is now pursuing this policy of stupidity in regard to the Cormorant, by offering a reward of one shilling a head for each bird killed. A like war was waged a few years ago on the Cormorants on the Murray River, and with disastrous results to the fishing which was to benefit by this slaughter of the innocents. It is a bad policy to kill first and investigate afterwards. Mr. Gurney's comments on this subject are most interesting.

There are two statements in this fascinating book on which more evidence is desirable. On page 97 we are told that in winter "Gannets are often on the wing for forty or fifty hours at a stretch, without alighting to rest on the water . . ." What evidence is there for this estimate? In a most interesting chapter on the ages of birds Mr. Gurney suggests that the Gannet may live as long as a hundred and fifty years, and in his preface he even extends this period to "two or three hundred years." His inference that the Gannet's viability is great is sound, but it is surely somewhat overestimated.

Apart from the sterling merits of this work, it is handsomely presented and beautifully illustrated, and this being so we marvel at the miserable travesty of a Gannet in flight which is stamped upon the cover; it does not even gain merit by its sheath of gold!

W. P. P.

Gyldenstolpe on Birds from Siam.

[Birds collected by the Swedish Zoological Expedition to Siam, 1911-1912. By Nils Gyldenstolpe; with one plate and two figures in the text. Kungl. Svenska Vetenskapsakademiens Handlingar, Band 50, No. 8, 1913, pp. 1-76.]

Mr. Gyldenstolpe spent about six months in Siam, visiting the eastern and northern parts of that kingdom and collecting assiduously. He mentions 191 species in his list, and obtained examples of nearly all these. Two Timeline birds are described as new—*Criniger lönnbergi* from the evergreen forests of northern Siam, and *Rubigula johnsoni* from the Korat plateau in eastern Siam. The male, hitherto undescribed, of *Æthorhynchus xanthotis* Sharpe, was also obtained for the first time and is figured together with the two new species. The introduction contains a good and ample account of the vegetation and other physical features of the country traversed.

Heatherley on the Peregrine.

[The Peregrine Falcon at the Eyrie. By Francis Heatherley, F.R.C.S. With Photographs by the Author and C. J. King. Pp. 1-73; 30 illustr. London (Country Life), 1913. Small 4to. Price 5s.]

The photographs here reproduced, together with the notes which accompany them, are the result of work for three successive springs (1910-12) at the same eyrie by Dr. Heatherley and his friends. The exact situation of this eyrie he wisely does not reveal, and though he dedicates his work to "all egg collectors," he suggests a simple method to employ to circumvent them in their pursuit:—"Wet each egg, and then scrawl all over it with a violet marking-ink pencil. This has no prejudicial effect on incubation, but renders the egg useless to collectors, as the violet marks are more indelible than the natural blotches."

The field-notes and photographs were made from a portable observation-shed made of tent-material, which was erected close up to the eyrie; and from this Dr. Heatherley and his friends kept the birds under continuous observation

for no fewer than thirteen days and nights during the spring of 1911. The result is an extraordinary collection of intimate pictures of the Peregrines feeding and brooding their downy young from the age of two days after hatching, till they were twenty-nine days old.

Among the more interesting observations recorded is the fact that the female Peregrine, a few days after the young are hatched, turns over to the tiercel (male) the duties usually assigned to her sex and spends most of her time foraging and bringing the quarry to the tiercel, who remains in the eyrie to feed and look after the young.

Dr. Heatherley concludes his interesting notes with some valuable advice on the subject of bird-photography, of which he here shows himself so complete an adept.

La Touche on the Birds of Chinwangtao, China.

[List of Birds observed at Chinwangtao and in the neighbouring districts of North-east Chihli: in Decennial Reports, 1902-11 of Commissioner of the Imperial Chinese Customs. Pp. 175.]

The port of Chinwangtao lies on the west coast of the Gulf of Liaotung, about 122 miles to the north-east of Taku, the port of Peking. It derives its importance as being ice-free in winter and also from its close proximity to valuable coal-fields, and has been open to foreign trade since 1898. Our fellow-member Mr. J. D. D. La Touche, who is stationed at Chinwangtao in charge of the Imperial Maritime Customs, has incorporated in his report on the trade and revenue of the port a list of birds observed by him in that neighbourhood. These are 234 in number, out of which only 58 appear to be breeders, the others being all winter visitors and migrants.

We hope that Mr. La Touche will be able to extend this list and publish it with further details later on in some more accessible form.

Mathews on Australian Birds.

[The Birds of Australia. By Gregory M. Mathews. Vol. iii. part 3; pp. 205-300, pls. 151-166. London (Witherby), 1913. 4to.]

This part of Mr. Mathews' work continues the Sandpiper

alliance and proceeds to the Woodcocks and Snipes. The illustrations are even better than usual, and the quotations from various writers with regard to the habits of the birds are full and well chosen. Perhaps the point of greatest interest is the discussion of the genera, for after full consideration the author thinks it advisable to propose no fewer than nine that are new for the Snipes and Woodcocks alone, as follows:—

<i>Ditelmias</i>	for the species	<i>hardwicki</i> Gray = <i>australis</i>	pre-
<i>Parascalopax</i>	„ „	<i>saturata</i> .	[occupied.
<i>Chubbia</i>	„ „	<i>stricklandi</i> .	
<i>Homoscolopax</i>	„ „	<i>imperialis</i> .	
<i>Neospilura</i>	„ „	<i>solitaria</i> .	
<i>Macrodura</i>	„ „	<i>nobilis</i> .	
<i>Odurella</i>	„ „	<i>brasiliensis</i> .	
<i>Eugallinago</i>	„ „	<i>macrodactyla</i> .	
<i>Subspilura</i>	„ „	<i>megala</i> .	

In the Sandpiper group he has:—

<i>Anteliotringa</i>	for the species	<i>tenuirostris</i> Horsf. (= <i>crassi-</i> <i>rostris</i> auctt.),
<i>Neopisobia</i> subg. n.	„	<i>damacensis</i> (= <i>subminuta</i> auctt.),

and a new subspecies “*rogersi*” for the eastern form of the Knot.

The following names are accepted for other eastern forms:—

Heteroscelus incanus brevipes (only one trustworthy Australian record of the western form).

Actitis hypoleucis aurita (Latham, ex Watling drawings) the figure having been referred by error to *Tringa acuminata*.

Xenus [*Terekia*] *cinereus javanicus*.

Glottis nebularius glottoides.

Rhyacophilus glareola affinis.

Arenaria [*Calidris*] *leucophæa tridactyla*.

Limicola falcinellus sibirica (first recorded by the author.)

Erolia ferruginea chinensis.

Pisobia minuta ruficollis.

Only one record of Bartram's Sandpiper is admitted for Australia, while a description is given of the hitherto unknown egg of *Pagoa* [*Ægialitis*] *geoffroyi* on the authority of Mr. Stuart Baker.

Useful woodcuts are given in the *Tringa* group to show the difference in the tail of the species "*acuminata*" and "*minuta*," and the similarity in those of the latter and "*fuscicollis*." In the plate of the Curlew Sandpiper the first name is accidentally printed "Curley."

Mathews' New Check-list of Australian Birds.

[A List of the Birds of Australia. By Gregory M. Mathews, F.R.S.E., containing the names and synonyms connected with each genus, species, and subspecies of birds found in Australia, at present known to the author. Pp. xxiv+332. London (Witherby), 1913. 8vo.]

The indefatigable Mr. Mathews has now issued a new check-list of Australian birds. If our memory serves us correctly this is the third list apart from his larger descriptive work now being issued in parts on the same subject. Mr. Mathews' first list appeared as a supplement to the 'Emu' in 1908 and contained 880 species and subspecies; the second, published in 'Novitates Zoologicæ' in 1912, contained about 1450; the present list, which forms a separate publication, has not the species and subspecies numbered, but as about seven go to a page and there are 317 pages, the number of separate forms recognized must exceed 2000.

Whether Australian and other workers in ornithology will be able to recognize the distinctness and the usefulness, even if distinguishable, of all these many subspecies, generally only possible to identify with large series for comparison and with access to the types in Mr. Mathews' collection, time alone can show; but Mr. Mathews claims that the nomenclature has been very carefully determined, and is based on strict priority as interpreted by the code of rules formulated by the International Congresses of Zoology, and that whether we accept all his subspecies or not his nomenclature must stand.

With regard to the law of priority it is a matter on which all systematic workers have been in times past and now are agreed, that it is only by its strict application under some code of generally recognized laws that can bring us to finality in this tiresome matter of nomenclature; there can be no doubt that in the past, many workers have neglected to carry out the rules to their logical conclusion for fear of introducing changes distasteful to themselves and to others in sympathy with them.

As to the present volume, so far as we have been able to judge, the work is very complete and accurate, the type of each genus and the method by which such types are designated being indicated. All synonyms are given, at any rate so far as Australian species are concerned, and in the case of species and subspecies the type locality of each has been carefully noted. It is therefore quite easy for any worker to use this list, even if he does not approve of the subdivision of the older species into a number of geographical races. At any rate we are nearer finality than we should be if we adopted the system recently proposed by a committee of the Royal Australian Ornithologists' Union, recently published in 'The Emu' and reviewed in the last number of 'The Ibis.' This is supposed to be based on the work of Gould and on the 'Catalogue of the Birds in the British Museum,' and its adoption could only lead to the most hopeless confusion.

Mr. Mathews' Introduction contains a most useful history of the progress of our systematic knowledge of Australian birds, commencing from Gmelin's work, published in 1788, in which Latin names were given to a few birds described under English vernacular names by Latham in his 'Synopsis.' These had been brought to England by the naturalists attached to Captain Cook's ships during his famous voyages of circumnavigation.

In another section of the Introduction the zoogeographical relations of Australian birds are discussed. Mr. Mathews draws attention to what he believes to be an antarctic element in the avifauna, and instances such genera as

Tribonyx and *Cereopsis* as having an antarctic origin. To prove this, however, it is necessary to postulate considerable changes in the distribution of land and water, and great alterations of climate in tertiary times, and at present there seems to be hardly enough evidence of this. There seems to be no reason to reject the hypothesis that the Australian avifauna originally reached the continent from the north, but at so long a period ago that it has become profoundly modified.

Hedley and Spenser recognize three faunal regions in Australia—the Eyrean, the Bassian, and the Torresian. Of these the Torresian includes most of the Northern Territory and Queensland; the Bassian, Victoria, coastal New South Wales, and Tasmania; and Eyrean, Western and Southern Australia and the dry central regions. These faunal divisions of the Australian continent are touched on by Mr. Mathews, who also points out the significance of island faunas, and that similar “island faunas” occur within the continent, such as the Mallee country on the borders of Victoria and New South Wales and the Bellenden Ker Range of Queensland, where the avifauna differs in a most remarkable way from that of the surrounding districts.

No worker in Australian ornithology can afford to pass over this laborious and painstaking volume, and we should like to congratulate not only the author but the publisher on the excellent manner in which the volume has been produced.

Mearns on new African Birds.

[Descriptions of four new African Thrushes of the Genera *Planesticus* and *Geocichla*, by Edgar A. Mearns. *Smiths. Miscell. Coll.* vol. 61, no. 10, 1913, pp. 1-5.

Descriptions of six new African birds. *Id. ibid.* no. 11, 1913, pp. 1-5.

Descriptions of five new African Weaver-birds of the Genera *Othypantes*, *Hypargos*, *Aidemosyne*, and *Lagonosticta*. *Id. ibid.* no. 14, 1913, pp. 1-5.]

These new species and subspecies were all obtained in east or north-east Africa, some by the author when with Col. Roosevelt in his celebrated journey from British East

Africa to Egypt, some by Mr. Edmund Heller, who accompanied Mr. Paul J. Rainey's expedition during which the interesting cinema films were obtained which have been shown in London. Others, again, were got during the Childs Frick Expedition which traversed Abyssinia and British East Africa.

Without seeing the specimens described it is not possible to make criticisms, but we cannot but deplore the description of new subspecies of *Cisticola* from single specimens without comparison with the material contained in the far more extensive collections of the Old World museums.

Millais' Diving Ducks.

[British Diving Ducks. By J. G. Millais, F.Z.S., M.B.O.U.; with forty-two plates (seventeen of which are coloured) by Archibald Thorburn, O. Murray Dixon, H. Grönvold, and the Author. Vol. ii. Pp. xii.+164. London (Longmans), 1913. 4to.]

The first volume of this magnificent work was noticed in 'The Ibis' last July, and now the appearance of the second volume completes Mr. Millais' account of both the Surface-feeding and Diving Ducks of the British Islands.

The present volume contains accounts of the three Eider Ducks, the three Scoters, and the four Mergansers recorded from the British Islands, and of these only the Common Eider, the Common Scoter, the Goosander, and the Red-breasted Merganser can be considered as breeding birds; the Velvet Scoter and the Smew are only winter visitors, while the King and Steller's Eider, the Surf Scoter, and the Hooded Merganser are only vagrants in the British Islands.

Mr. Millais devotes most of the letterpress to the Eider, and describes at great length its plumage-changes, illustrating these with eight plates of photographs of skins obtained for the most part by himself in the Orkney Islands, where his personal experiences have chiefly been, and his account of the flight, diving-power, food, and breeding habits of this bird make most interesting reading.

In the paragraphs dealing with the genus *Somateria* he

writes at some length on the various races or subspecies of the Eiders, and though on page 1 he states "at present it is difficult to separate the Eiders of the British Isles, Denmark, Norway and those from Finmark eastwards," on the following page he distinctly recognizes as separate subspecies:—

Somateria mollissima mollissima (Linn.), the typical race from Scandinavia.

S. m. borealis Brehm, from Greenland and Labrador.

S. m. britannica subsp. n., from the British Islands.

S. m. dresseri Sharpe, from the Atlantic coasts of N. America.

S. m. færøensis Brehm, from the Faeroes.

S. m. islandica Brehm, from Iceland.

S. m. norvegica Brehm, from Norway.

S. m. v.-nigra Gray, from N.W. America and N.E. Asia.

It seems very doubtful whether it will be possible to maintain all these subspecies, especially the two found in Scandinavia; most of the distinctions given appear to rest on the coloration of the soft parts which fade rapidly after death, and require, therefore, most careful attention at the time of collecting.

In his account of the species Mr. Millais makes little or no further reference to the question of subspecies, nor does he discuss the question of subspecies in the case of any other of the species dealt with.

As usual, the illustrations are magnificent; among them we would pick out for special commendation Thorburn's Eider Duck, which forms the frontispiece. This has been beautifully reproduced by Frisch of Berlin. Mr. Millais has himself painted the King Eider, the reproduction of which, by Messrs. André & Sleigh of Bushey, quite comes up to Frisch's work.

The volume concludes with a chapter on shooting methods and another on rearing ducks for shooting and on breeding and rearing ornamental wild-fowl in confinement. We must congratulate Mr. Millais on the successful completion of this most sumptuous series of volumes.

Reiser on the Great Spotted Cuckoo.

[Ueber die Erbeutung eines Häherkuckucks, *Clamator glandarius* (L.), und eine wichtige Örtlichkeit zur Beobachtung des Vogelzuges. Von O. Reiser. Orn. Jahrb. xxv. 1913, pp. 81-85.]

In this short note Dr. Reiser recounts the circumstances under which an example of the Great Spotted Cuckoo was obtained on the banks of the Narenta in southern Dalmatia on the 1st of April last. It is the second record of its occurrence in Dalmatia, as well as in the whole of Austro-Hungary.

Ridgway on Colour Nomenclature.

[Colour Standards and Colour Nomenclature. By Robert Ridgway, M.S., C.M.Z.S., etc., etc. With fifty-three coloured Plates and eleven hundred and fifteen named colours. Pp. 1-44, pls. 1-53. Washington (publ. by the Author), 1912. 8vo. London (Wm. Wesley & Son). Price £1 15s.]

This work was intended to be originally a second edition of the author's 'Nomenclature of Colours,' published in 1886, and now long out of print and very difficult to obtain.

Some two or three years after the publication of the first-named work Mr. Ridgway began to devise plans and gather materials for a new book on the subject. His time, however, has been so fully occupied by other matters that progress has been necessarily slow; but after more than twenty years of sporadic effort it has at last been completed.

The greater part of the present work is occupied by the fifty-three plates, on each of which there is represented samples of twenty-seven shades or tints of colours, all named, and by means of these it will be possible, if they are generally used, as we hope they may be, to standardize the nomenclature of colours in descriptive zoology. At present few things are more vague than the nomenclature of colour in zoology. Every author has his own ideas and his own nomenclature, and there is great confusion and ambiguity. If authors were to adopt some such code as is contained in

this little work, their descriptions would be more intelligible to their readers.

Great pains have been taken both in the selection of the colours and in their reproduction to insure permanent constancy.

Stresemann on Malayan Birds.

[Ornithologische Miszellen aus dem indo-australischen Gebiet. II. Teil. Von Erwin Stresemann. *Novitates Zool.* xx. 1913, pp. 289-324.

Die Vögel von Bali. Aus den zoologischen Ergebnissen der II. Freiburger Molukken-Expedition. Von Erwin Stresemann. *Ibid.* pp. 325-387, pl. ii.

Über eine Vogelsammlung aus Misol. Aus den zoologischen Ergebnissen der II. Freiburger Molukken-Expedition. Von Erwin Stresemann. *Journ. f. Ornith.* 1913, pp. 597-611.]

In 'The Ibis' for April of last year (p. 338) will be found some account of Mr. Stresemann's expedition to the Dutch Indies, and he is now engaged in working out the results at Tring. In the first of the papers now noticed he discusses the various subspecific forms of *Artamus leucorhynchos*, *Hypothymis azurea*, *Eurystomus orientalis*, *Amaurornis phænicura*, *Baza subcristata*, *Cinnyris clementiæ*, *Macropygia ruficeps*, *Alcedo ispida*, *Thriponax javensis*, and *Centropus sinensis*, among which many novelties are described for the first time.

The second paper deals with the avifauna of the island of Bali, lying to the eastwards of Java, and separated from the next more easterly-lying island of Lombok by Wallace's line, so often referred to in works on geographical distribution. Since Wallace's time—and he only spent two days in June 1856 on the island—the only collector who has visited Bali is William Doherty, who was there for two months in 1896, and whose collections were described by Dr. Hartert in the third volume of the *Novitates Zoologicae*. The number of species known from the island before Mr. Stresemann's visit was 96; to these are now added 53, making 149 in all. Doherty only collected on the

north coast, while Mr. Stresemann travelled right across the centre of the island, reaching an elevation of 6500 ft. in the central district; and no doubt it is owing to his having been able to penetrate into the interior of the island that he has been able to make such large additions to the avifauna.

A considerable number of new subspecific forms are described not only from Bali but from some of the other Malayan islands. Perhaps the most interesting is a new subspecies of *Phylloscopus* (*P. borealis examinandus*) which winters in the southern islands from Bali to Flores and Sumba, while the typical form which breeds on Lake Baikal goes to the Philippines, Celebes, and the Moluccas. The interesting new Starling (*Leucopsar rothschildi*) described last year in the Bulletin of the Club is figured, as is also *Gracupica tertia*, obtained previously by Doherty and described by Hartert, which is found both in Bali and Lombok.

A very interesting table at the end of the paper, giving the distribution of the Bali birds eastwards and westwards, shows very plainly how marked a break occurs between Bali and Lombok, and how few species seem to have been able to spread across Wallace's line.

The third paper deals with a less interesting collection of birds from Mysol, in the Moluccas, which has been visited by a good many collectors since Wallace's time. Here Dr. Tauern, a member of the expedition, spent from August to October 1911 and obtained examples of 71 species, four of which were new to the island and one a new subspecies. The fauna of this island is fairly uniformly distributed, as the elevation of the highest part of the interior does not exceed 900 feet.

Swarth on the Arizona Bush-Tit.

[The Status of Lloyd's Bush-Tit as a Bird of Arizona. By H. S. Swarth. Auk, xxx. 1913, pp. 399-401.]

Mr. Swarth finds that *Psaltriparus santaritæ*, described by Ridgway (Proc. U.S. Nat. Mus. x. 1888, p. 697) from the Santa Rita mountains, Arizona, is a juvenile plumage-stage of *P. plumbeus* and not of *P. lloydi* as had been supposed by

Oberholser, and that there is no evidence of the occurrence of the last-named species within the boundaries of the State of Arizona.

Trevor-Battye on Crete.

[Camping in Crete. With notes upon the animal and plant life of the Island. By Aubyn Trevor-Battye, M.A., &c. Pp. xxi+308; 32 plates and a map. London (Witherby), 1913. 8vo. Price 10s. 6d.]

Mr. Trevor-Battye has written a very pleasant and readable account of his wanderings in Crete, which, though so often seen from ships coming and going to the east, is comparatively seldom visited by the tourist. Yet it is a fascinating islet, something like Sicily, but greener and full of waters—as beautiful as Corfu without that island's exotic note.

Our author concerns himself in the present volume neither with international politics nor with excavations and antiquities, the two matters which have made Crete conspicuous among Mediterranean islands, but gives us a series of simple pictures of the natural features and of the inhabitants, which he has noticed while wandering from one end of the island to the other. Interspersed with these will be found interesting notices of the various birds met with, and these are all summarized into a list on pp. 257-263, of those seen or obtained during a visit between the months of March and June.

The photographs with which the volume is illustrated are all, with the exception of five, from Mr. Trevor-Battye's own camera, and an excellent map makes it quite easy to follow his various routes.

The perusal of this work makes one long to be able to follow in the author's footsteps and visit this fascinating island. Beyond this no further commendation is needed.

Witherby on the Rook.

[The Sequence of Plumages of the Rook. With Special Reference to the Moult of the "Face." By H. F. Witherby. *British Birds*, vii. 1913, pp. 126-139, pls. 4-11.]

As is well known, the young Rook has a feathered face

like other members of the Crow family, while in the adults the face and chin are quite bare of feathers, and it is a curious fact that in the case of so common a bird this change has never been properly investigated, indeed it has been suggested that the Rook gets its bare face by digging for worms!

Mr. Witherby has taken up this question, and has been able to examine Rooks obtained nearly every week throughout the year, and he here gives the results of his studies.

The young Rook, whose face is fully feathered, moults his face and chin in July or August, but the face-feathers are quickly replaced by new ones; though Mr. Witherby believes that he can detect some signs of degeneracy even then. In January, or even a month or two later, a second face-moult begins. The face-feathers now drop out and are replaced by "pins" and a few very degenerate plumule-like feathers; the bare skin at first is pink and soft but gets hard and whitish, while plumules and pins wear down, though remnants of them can be seen with a glass even in the autumn. At the second autumn moult and every subsequent one, while the chin becomes covered with a blackish grey down of plumules the sides of the face only produce a few minute bristles, and these, at least the chin-down, disappear before January by abrasion, leaving this space quite bare until the following autumn.

Mr. Witherby's paper is illustrated by a series of photographs showing the Rook's chin at various seasons and ages, and we must congratulate him on having carried through a sound piece of work.

Migration Report for 1912.

[Report on the immigrations of summer residents in the spring of 1912: also notes on the migratory movements and records received from light-houses and light-vessels during the autumn of 1911. By the Committee appointed by the British Ornithologists' Club. Being Volume xxxii. of the Bulletin of the British Ornithologists' Club. London (Witherby), 1913. 8vo.]

This is the eighth report of the Committee of the B. O. C., the members of which were first elected in December 1904

and whose first report was issued in February 1906. All the reports are drawn up on the same lines so that comparisons can be more easily made, and it is hoped that at the end of ten years it will be possible to make a digest of all the observations from which deductions may be drawn which will solve or help to solve some of the mysteries of this great problem.

During the spring of 1912 the weather was, on the whole, very favourable and migration commenced early (on the 6th of March), and individuals of many species arrived in various parts of the country at unusually early dates.

The autumn migration of 1912 had no feature to which attention need be specially drawn. The weather during early autumn was unusually warm and fine and the departing birds seemed to have slipped away quietly and in small parties, so that observations were not easy to make.

An interesting feature of the winter of 1911-12 was the great irruption of Little Auks, many hundreds of which, having been driven southwards, were blown inland by gales and perished miserably in all parts of the country.

We would strongly urge members of the B.O.U. and others to assist the committee by purchasing the report. The funds at their disposal are very scanty, and if more ornithologists would help by buying a copy of the report, it would assist the committee very considerably,

The Auk.

[The Auk: a Quarterly Journal of Ornithology. Vol. xxx. for 1913. Cambridge, Mass., U.S.A.]

In noticing the 'Auk' it is hardly possible to do more than give an outline of the contents of the principal articles; they are here roughly classified according to subject-matter.

1. Faunal—United States.

Messrs. A. H. Wright and F. Harper (pp. 477-505, pls. 14-20) have a long and interesting article on the birds met with by them in the Okefinokee swamp. This is a large tract of about 660 square miles in southern Georgia and extending over the boundary into Florida. It has been very little

explored owing to its inaccessibility and to the difficulty of penetrating into it, and so it remains very much in its original condition, and but little modified by human occupation. It consists of a series of islands covered with pine barrens, cypress (*Taxodium*) bays, and prairies, *i. e.* open swamps and water courses. Within its limits are a number of birds now becoming very scarce in most parts of the United States, such as the Water Turkey (*Anhinga anhinga*), the Lumpkin (*Aramus vociferus*), the Wild Turkey (*Meleagris silvestris*), and the Pileated Woodpecker (*Phlæotomus pileatus*), as well as several of the swamp-loving Warblers (Mniotiltidæ), rare elsewhere. The authors, with several other naturalists, chiefly entomologists, all from Cornell University, spent over two months of the summer of 1912 exploring and collecting, and their field-notes, with an interesting introduction, are here set out and illustrated by photographs of the types of scenery.

O. E. Baynard (pp. 240-247) writes on the breeding birds of Alachua county in central Florida, where there are probably more Egrets surviving than in any other part of the States. There are two rookeries strictly preserved, one by the National Association of Audubon Societies, and others which will probably be guarded in future. The two species *Herodias egretta* and *Egretta candidissima* are rapidly increasing owing to the protection afforded to them.

E. S. Cameron, M.B.O.U., a resident in Montana, has some interesting field-notes on the nesting habits, food, and changes of plumage of *Buteo swainsoni* (pp. 167-176, 381-394), a much persecuted bird, which is yearly becoming more scarce, though it does little or no harm. This paper is illustrated with photographs of a nest situated in a lonely cottonwood tree, and of the changes of plumage.

G. Eifrig (pp. 236-240) records his observations on some rarer birds noticed during several years past at Addison, Ill., a town about 20 miles west of Chicago, in prairie country.

S. S. Visher (pp. 561-573) contributes an annotated list of the birds of Sanborn county, S. Dakota, a typical prairie region.

Other faunal papers are by A. H. Norton (pp. 574-576) on rare birds in Maine; H. Thurston and H. S. Boyle (pp. 542-545) on the birds of Long Island; H. S. Hathaway (pp. 545-558) on birds from Rhode Island; and F. M. Western (pp. 418-421) on birds from the highlands of N. Carolina.

2. Faunal—Outside the United States.

B. W. Evermann (pp. 15-18) records eighteen birds new to the Pribiloff Islands in Behring Sea; three of these, the Tufted Duck, the European Pochard, and Tengmalm's Owl are new additions to the North American fauna. These birds were collected and many observations made by Dr. Walter L. Hahn, who was appointed naturalist to the fur-seal service of the American Bureau of Fisheries in 1910, and who lost his life the following year by exposure in the ice-cold water of a lagoon, owing to the capsizing of a boat. He was succeeded by M. C. Marsh, who has continued the ornithological observations.

Dr. C. W. Townsend contributes some further notes on Labrador birds (pp. 1-10, pls. i.-ii.), and complains bitterly of the increasing scarcity of the sea-birds along the coasts.

J. H. Fleming, Col.M.B.O.U. (pp. 225-228) has some notes on the birds round Toronto, supplementary to his paper in the 'Auk' for 1906 and 1907.

L. L. Jewel, one of the engineers of the Panama Canal (pp. 422-429), writes interestingly on the North American migrants he has noticed in the neighbourhood of the Gatún dam, and calls special attention to the very short time which some of the northern birds are absent from the tropics. The Spotted Sandpiper (*Actitis macularia*) has been recorded for every month in the year except May and June, and the Yellow Warbler (*Dendroica æ. æstiva*) every month except June and July.

J. L. Peters (pp. 367-380) spent four months (Jan.-Apr. 1912) on the Hondo river, the frontier between British Honduras and Yucatan, collecting for the Harvard Museum. Among the 132 species obtained he finds four new subspecies of the genera *Rupornis*, *Ortalis*, *Melopelia*, and *Cardinalis*.

3. Anatomical.

H. L. Clark has some valuable contributions on the anatomy and systematic relationships of various genera. In his first contribution (pp. 11-15) he discusses the characters of *Rhodinocichla rosea eximia* Ridgway from Panama. It was regarded by Sharpe (Brit. Mus. Cat. 1881) as one of the Miminæ and by Ridgway as an aberrant Mniotiltid. Mr. Clark considers that it is on the whole most nearly allied to *Mitrospingus*, and should be placed with the Tanagers.

In a second paper (pp. 262-267) are given anatomical notes on *Saltator*, *Chlorophonia*, and *Euphonia*. He regards the first as a finch allied to *Pipilo*, the second as "having no special relationship to the Tanagers," while *Euphonia* differs considerably from *Chlorophonia*, and seems to "approach some of the Cœrebidæ."

The third paper (pp. 402-406) deals with the anatomy and relationships of *Todus*, *Oxyruncus*, and *Spindalis*.

It is to be hoped that Mr. Clark will continue these valuable researches on a subject so much neglected by most systematic ornithologists.

4. Migration.

Witmer Stone has reprinted with comments (pp. 325-358, pls. ix.-xi.) the interesting calendar kept by Wm. Bartram, of Philadelphia, from 1802-1822, in which are recorded the arrival of migrants in his garden, which though then in the country is now within the city limits, and is preserved as a public park under the name of Bartram's garden. Mr. Stone has rearranged the entries in the diary in systematic order, and illustrates his paper with a portrait of Bartram and a sketch of his house still standing in the garden.

Other papers on migration are by H. H. Cleaves (pp. 248-261) on "bird-banding" or bird marking in the United States; by W. W. Cooke (pp. 205-221) on the connection and relation of migration and weather conditions; and by J. C. Phillips (pp. 191-204) on the periodic accuracy of bird-migration.

5. Song and Flight.

H. W. Wright contributes a second paper on the early morning and late evening song of birds (pp. 512-537). He finds the earliest birds to greet the dawn are Flycatchers (Tyrannidæ), Sparrows, and Thrushes, and of these the Wood Pewee (*Myiochanes virens*) commences the chorus at about 82 minutes before sunrise, while the last bird to sing in the evening is the Thrush (*Hylocichla swainsoni*), which ceases 37 minutes after sunset. Apparently the silence of the night in New Hampshire is never broken by the song of a Nightingale or any other night-singing bird.

R. T. Moore (pp. 177-187) has reduced to musical notation the song of the Fox Sparrow (*Passerella iliaca*) in the Magdalen Islands of the Gulf of St. Lawrence, its most southern breeding limit.

Alex. Forbes (p. 359) writes on the gliding flight of Gulls often noticed behind or on the lee side of a steamer, when the wind is nearly ahead. He believes that these birds are able to glide horizontally, without moving their wings, through the agency of ascending currents caused by the movement of the ship against the wind.

6. Avian Palæontology.

The veteran R. W. Shufeldt (pp. 29-39) contributes an article on the extinct Meleagridæ of the United States. He gives an account of three species, which were described by Marsh many years ago on what Dr. Shufeldt regards as quite insufficient evidence owing to the fragmentary nature of the remains.

Journal für Ornithologie.

[*Journal für Ornithologie*. Herausgegeben von Prof. Dr. Ant. Reichenow. 61 Jahrgang, 1913. Heft 1 to 4 and 2 Sonderheft.]

This magazine is the father of all ornithological periodicals; the first volume dates from 1853, so that it is seven years older than 'The Ibis.' The number of articles in the present volume is very large, and all that we can do here is to give some indication of the principal contents.

Of faunistic articles :—

H. Frhr. Geyr von Schweppenburg (pp. 146–161) writes on the birds observed during the last two years in East and West Prussia.

Dr. Erich Hesse (pp. 618–630) gives an account of a great resort of the Common Crane, the “Havelländisches Luch,” a marshy and comparatively wild region about six miles north-west of Berlin, where he has observed these birds at close quarters for many years.

N. Sarudny and M. Härms (pp. 630–661) continue their studies on the birds of Persia. In the present contribution they discuss the Sparrows of the genera *Petronia*, *Gymnoris*, and *Passer*, of which they recognize twelve distinct forms.

Dr. H. Weigold (pp. 1–40 & 561–597) spent the spring of 1911 in western Asia, and in the first article he writes on the birds of the neighbourhood of Urfa in north-western Mesopotamia, where he found that the river Euphrates forms a boundary between two zoogeographical regions ; to the west of the river *Agrobates galactoides syrica* was the breeding bird, on the east *A. g. familiaris*. The month of March was spent in the valley of the Menander inland from Smyrna ; in his second contribution he gives some field-notes of the birds seen there.

H. Grote (pp. 125–142) concludes his notices of the birds of the south-east portion of German East Africa ; no new forms are described.

Adalbert Klaptocz (pp. 444–455) writes on the birds collected or met with by him in French Guinea. Short field-notes are given and no new species are described.

Erwin Stresemann (pp. 597–611) contributes an article on a collection of birds made by Dr. O. Tauern in Mysol, one of the Molucca Islands. This has been separately noticed (see p. 153).

Of systematic papers :—

O. Neumann and O. Graf Zedlitz revise the genus *Cercomela*, containing a number of Chat-like birds from the desert country of north-east Africa and south-west Asia. Four

species are recognized, and their various subspecific forms reviewed; two new subspecies are named.

Of Oological papers:—

Dr. H. Szielasko (pp. 52-117 & 229-361) has an important paper, illustrated by several plates, on the structure of the egg-shell in various groups of birds, and on its correlations with classification and taxonomy.

Forester Wendlandt (pp. 409-443) reviews the breeding habits of European Owls, giving elaborate measurements of the very large series of eggs he has been able to examine.

L. Schuster (pp. 540-546) describes the nests and eggs of various birds met with by him in German East Africa.

Of papers on migration and allied subjects:—

Prof. Jägerskiöld, of the Gothenburg Museum (pp. 380-388), relates how he "ringed" 76 Rough-legged Buzzards in Swedish Lapland in July 1911, and gives a sketch-map showing the localities, chiefly in Prussia to the south of the Baltic, whence as many as twelve of these were subsequently recaptured.

Paul Kollibay (pp. 612-617) writes on the irruption of the Siberian Nutcracker into Silesia in the spring of 1911.

F. von Lucanus (pp. 117-124) finds from observations made from air-ships that the flight of birds is very seldom at altitudes over 400 m. (=1200 ft.), while no birds at all have been hitherto detected at an elevation of over 1000 m.

Of papers on Zoogeography:—

Dr. E. Snethlage writes (pp. 469-539) on the geographical distribution of birds in the region of the lower Amazon basin, and discusses their relation to the botanical divisions of the same area. These are: the virgin forest above flood-level, the prairie or campos region above flood-level, and the corresponding regions below the flood-level of the great rivers. A fifth region, the "Capoeira," where the forest has been cleared by man and its place taken by secondary growth, is recognised. Each of these regions possesses its special avifaunal facies, which is here discussed.

Miss Snethlage further points out that the Amazon itself and some of its larger tributaries form a well-defined boundary between distinct faunal areas.

The two "Sonderhefts" contain the annual reports on the "bird-watching" stations, the first by Dr. Hugo Weigold on that of Helgoland, the other on that of Rossitten in East Prussia by Dr. Thienemann.

Trans. N. Zealand Inst.

[Transactions and Proceedings of the New Zealand Institute for the year 1912. Vol. xlv. 1913. Pp. viii+490.]

Of the papers devoted to ornithology in this volume, the first is by Mr. Tom Iredale (pp. 78-92) concerning the avifauna of the Kermadec Islands. He gives a list of the birds actually observed by him in this group during his visit in 1908, with their correct names under the strict rules of nomenclature and a few notes on their synonymy and occurrence. In the preliminary part of the paper he discusses the zoogeographical relations of three groups of islands—Lord Howe, Norfolk, and Kermadec, which lie in a west-east line between New Caledonia and the Fiji group on the north, Australia on the west, and New Zealand on the south. Mr. Iredale believes from his study not only of the avifauna of this but of other groups, that the relations of Lord Howe are almost entirely with New Caledonia and not with New Zealand. In the case of Norfolk Island the basic element is New Caledonian, but there is also a Neozelanic element as evidenced by the presence of *Nestor* and a Fruit-Pigeon (*Hemiphaga*). On the other hand, the Kermadecs do not appear to have derived their fauna from New Caledonia at all, but are characterized "by their strong Polynesian facies with a Neozelanic basis."

On pp. 92-93 Mr. Oliver gives a few additional notes obtained, since his visit there with Mr. Iredale, on the birds of the Kermadecs.

Article LI. (pp. 387-397) is taken up by an interesting account of New Zealand bird-song by Mr. J. C. Andersen. It is a continuation of others previously published. He has listened to and reduced to musical notation no fewer than 79 different songs of the Tui (*Prosthemadera*), and has done the same for many other native New Zealand birds.

Other Ornithological Publications received.

- AGASSIZ, G. R. Letters and Recollections of Alexander Agassiz. (London & New York, 1913.)
- FAXON, W. Brewster's Warbler (*Helminthophila leucobronchialis*). (Mem. Mus. Comp. Zool. Coll. Vol. xl. No. 6. Harvard, 1913.)
- GRINNELL, J. The Willow Ptarmigan. The National Association of Audubon Societies Educational Leaflet, No. 60. (Bird-Lore, 1912, 4 pp., 1 col. plate.)
- GRINNELL, J., & SWARTH, H. S. An account of the Birds and Mammals of the San Jacinto area of S. California. (Calif. Univ. Publs. Vol. x. No. 10. Berkeley, 1913.)
- LECHNER, A. A. van PELT. Oologica Neerlandica. (Parts 4-6. The Hague, 1913.)
- NORTH, A. J. Nests and Eggs of Birds found breeding in Australia and Tasmania. (Vol. iv. pt. 3. Sydney, 1913.)
- SHUFFELDT, R. W. The American Grouse and their Identification. Part I. (Outer's Book. Milwaukee, 1913.)
- . Fossil Feathers and some heretofore undescribed Fossil Birds. (Journ. of Geol. Vol. xxi. No. 7, 1913.)
- TAYLOR, W. P. Synopsis of the Recent Campaign for the Conservation of Wild Life in California. (Condor, Vol. xv. 1913, pp. 125-128.)
- THOMSON, A. L. Aberdeen University Bird-Migration Inquiry: First Interim Report (1909-12). (Scottish Nat. 1912-13.)
- TODD, W. E. C. Preliminary Diagnose of apparently new Birds from Tropical America. (Proc. Biol. Soc. Washington, Vol. xxvi. 1913, pp. 169-174.)
- TSCHUSI ZU SCHMIDHOFFEN, V. R. v. Ornithologisches Literatur Österreich-Ungarns, 1912. (Verh. zool.-bot. Gesels. Wien, 1913.)
- TYLER, J. G. Some Birds of the Fresno District, California. (Cooper Crn. Club, Pacific Coast Avifauna, No. 9. Hollywood, 1913.)

- VAUCHER, A. Observations sur quelques Bartavelles du Bassin du Tessin. (Boll. Soc. Ticinese Sci. Nat., Anno viii. 1912.)
- Annals of the Cyprus Nat. Hist. Soc. (No. 4, 1912-13. Nicosia, 1913.)
- The Austral Avian Record. (Vol. ii. Nos. 2, 3. London, 1913.)
- Avicultural Magazine. (3rd Series, Vol. v. Nos. 1, 2, 1913.)
- Bird Notes. (New Series, Vol. iv. Nos. 10-12, 1913.)
- British Birds. (Vol. vii. Nos. 5-7, 1913.)
- Bull. Brit. Orn. Club. (No. exc. 1913.)
- The Condor. (Vol. xv. No. 5, 1913.)
- The Emu. (Vol. xiii. pt. 2, 1913.)
- Le Gerfaut. Revue Belge d'Ornithologie. (3rd Année, No. 10. Bruxelles, 1913.)
- Irish Naturalist. (Vol. xxii. Nos. 10-12, 1913.)
- Messenger Ornithologique. (No. 3. Moscow, 1913.)
- Die Schwalbe. Bericht des Komitees für Ornithologische Beobachtungs-Stationen in Österreich. (Neue Folge iii. 1912-13. Wien, 1913.)
- The Scottish Naturalist. (Nos. 22-24, 1913.)
- Zoologischer Anzeiger. (Bd. xlii. Nos. 11-13; Bd. xliii. Nos. 1-6, 1913.)
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VII.—*Letters, Extracts, and Notes.*

We have received the following letters addressed "to the Editor":—

SIR,—Might I bring the following interesting occurrence of the Baikal Teal [*Nettion formosum* (Georgi)] to your notice. During my stay in Malta last spring I made the acquaintance of a local ornithologist, Despott by name. In his collection of birds I was rather surprised to discover a beautiful example of the Baikal Teal, and on enquiring into its history I learned the following facts:—

A local sportsman, Fidele Caruana by name, on the 16th of April, 1913, shot one of three ducks of this species which he discovered swimming alone in St. George's Bay, Birzebbugia, Malta. As its identity puzzled him he brought the